## Performing Artist Charles Nichols: Musician, composer

In talking about his work, Charles Nichols says, "I compose electro-acoustic and acoustic music, research new instrument design and telematic [using technological devices to transmit information over long distances] concert streaming, and perform interactive computer music and structured improvisation on electric violin."

"As a composer, I explore the expressive potential of computer-music systems, on their own and in combination with acoustic and electronic instruments, dance, and computer-generated animation, and continue to explore the possibilities of acoustic ensembles."

"As a researcher, I design electronic musical controllers, that use servomotor and cable systems to simulate the sound and feel of an instrument...As a violinist, I extend my performance with computer-music systems, and play telematically with geographically distributed performers, reaching remote audiences...As an Associate Professor of Composition and Music Technology at The University of Montana School of Music, I encourage students to compose innovative music, whether they write with pencil on paper for acoustic ensembles, or with computer-music software and programming environments."

"The innovation in my composition centers on exploiting the musical potential of the computer, to expand the expression of traditional musical instruments, extend the performance gesture of the player, and turn recorded natural sounds into music. Programming in the computer can record and loop instruments in multiple speakers, so that a player can create their own accompaniment during the performance, or radically change the timbre of the instrument in response to dynamic or pitch, exaggerating the acoustic properties of the instrument. Effects in the computer can unlock the musical expression in recorded natural sounds, like filtering children talking into pitched melodies or granulating stones grinding and sticks cracking into rhythmic phrases."

"I am one of a few computer music researchers in the world applying the discipline of haptic [of or relating to the sense of touch] human-computer interface design, usually associated with robotics and computer science, to the development of computer-music controllers...The innovation of telematic performance is in collaborating with geographically distributed artists regularly without traveling, and performing for audiences who you would not ordinarily reach."

The panel praised Nichols for working in a medium where the borders and the boundaries haven't been established, and change with technology. They acknowledged his impressive and diverse collaborations, and his immense output in a variety of work that's received recognition. He's also a very influential teacher.

